REMARKS

This Amendment is in response to the Office Action dated October 28, 2008 in which claims 19-25 and 27-37 were rejected and claim 26 was indicated as being allowable if re-written in independent form.

Applicant respectfully requests reconsideration and allowance of all pending claims in view of the above-amendments and the following remarks.

I. DRAWINGS

The drawings were objected to as lacking descriptive legends for some of the elements appearing in the figures.

Enclosed is an amended set of drawings in which:

1. reference numeral "7" is added to Fig. 1, however Fig. 1 does not require further legends since each object is labeled with a reference numeral;

2. Fig. 2 is amended to include the labels "MLTR function" and "TBTS function" and to include "IP" in boxes 20-26 to indicate IP Packets;

3. Fig. 3 is not amended since it appears that additional legends are not needed in this figure.

II. CLAIM REJECTIONS UNDER §102 AND §103

Claim 19, 24-25, 27-28, 31-35 and 37 are rejected under 35 U.S.C. §102(a) as being anticipated by Appala et al. (U.S. Patent No. 6,862,265)

With this amendment, each independent claim 19, 32, 33 and 37 is amended to include the limitations of dependent claim 26, which is cancelled. Since claim 26 was indicated as being allowable if re-written in independent form, each amended independent claim and its respective dependent claims are in condition for allowance.

In addition, the pending claims are new and non-obvious in view of the following arguments.

A. **Present Disclosure**

The present disclosure, in at least one example, regards a technique of managing several data packets, for instance flows of images, at the network input.

More precisely, the technique attempts to avoid network congestion, whilst remaining able to accept bursts of priority packets. In order to achieve this, a device of token buckets of several levels is implemented (technique known as such). The allocation of the tokens to a packet is done according to its level of priority. The packets are inserted in a queue, at the network input, if tokens could be allocated to them, or refused (for instance, rejected) if the opposite was the case.

In addition, an example of the disclosure provides for a sole buffer memory at the network input, and for refusing packets according to their level of priority if necessary to optimize the filling-up of this input memory.

Notably, this example allows, in case of congestion, to save the priority information, by refusing the information that has lower priority, even if the buffer is not completely full.

B. **Amended Claims**

As mentioned above, the amended claims specify the features of claim 26, that is to say that each of the N levels of operation of a token bucket mechanism is managed by a regulator $b_i(r_i, bm_i)$, $i \in \{1 \text{ to } N\}$, with r_i as the nominal bit rate of the regulator, bm_i as the maximum size of the token buffer of the regulator, $b_i(t)$ as the instantaneous value of the filling of the token buffer of the regulator.

C. **APPALA et al. (US 6,862,265)**

APPALA discloses an integrated network switch, which includes a dequeuing system able to manage packet of distinct priority, using token bucket filter.

More precisely, this system manages a plurality of buffers, each of buffers corresponding to a priority levels. This system includes also a weighted round robin scheduler configured for supplying the data frames held in the priority queues to the corresponding output switch port and according to a prescribed weighted round robin scheduling.

The considered buffers do not contain the data flow packets themselves, but corresponding

pointers (please refer to column 5, lines 19 and 26).

In this document, each token bucket filter corresponds to several priority queues (figure 2). On this very point, it seems that the Examiner is confusing the token buffers described in the discussed claim 19 (that are zones for storing tokens, and not data) with the packet buffers and, in particular, the (only one – for example) input buffer.

In addition, APPALA does not disclose an invention wherein each of the N levels of operation of a token bucket mechanism is managed by a regulator $b_i(r_i, bm_i)$, $i \in \{1 \text{ to } N\}$, with r_i as the nominal bit rate of the regulator, bm_i as the maximum size of the token buffer of the regulator, $b_i(t)$ as the instantaneous value of the filling of the token buffer of the regulator.

Consequently, amended claim 19 is new in view of APPALA.

In addition, APPALA does not disclose an invention, which involves the successive use of MLTR function with a token bucket with N levels, and the second function called the token bucket traffic shaper or TBTS because it is based on a single-level token bucket type of algorithm and performs a traffic-smoothing operation for a regular flow on the network in limiting the instantaneous bit rate to a value acceptable by the network.

III. CLAIM REJECTIONS UNDER §103

Claims 29-30 are rejected under 35 U.S.C. §103(a) as being unpatentable over Appala et al (U.S. Patent No. 6,862,265) in view of Yang et al. (U.S. Publication No. 2002/0114334).

Claims 29-30 are rejected under 35 U.S.C. §103(a) as being unpatentable over Appala et al (U.S. Patent No. 6,862,265) in view of Erimli et al. (U.S. Patent No. 6,925,055).

Claim 36 is rejected under 35 U.S.C. §103(a) as being unpatentable over Appala et al. (U.S. Patent No. 6,862,265) in view of Oldak et al. (U.S. Patent No. 7,085,236).

The Applicant disagrees with the Examiner and considers that dependent claims 22, 29, 30 and 36 (in view of new amended claim 1) are new and involve an inventive step.

Indeed, neither APPALA et al. nor YANG et al., nor ERIMLI et al. nor OLDAK et al. discloses an invention wherein each of the N levels of operation of a token bucket mechanism is

managed by a regulator $b_i(r_i, bm_i)$, $i \in \{1 \text{ to } N\}$, with r_i as the nominal bit rate of the regulator, bm_i as the maximum size of the token buffer of the regulator, $b_i(t)$ as the instantaneous value of the filling of the token buffer of the regulator.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By: /David D. Brush/

David D. Brush, Reg. No. 34, 557
Suite 1400
900 Second Avenue South
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 334-3312

DDB